A. The amount of uncollectibles in a state depend on a number of factors specific to that state, including the identities of the active CLECs, the relative volumes of UNEs that they ordered, the degree to which those CLECs pay their bills, and the total amount of UNE and resale revenue in that state.

Q. How does Verizon determine when revenue is uncollectible?

A. In accordance with generally accepted accounting principles **(GAAP),** Verizon accrues amounts as "uncollectible" as receivables age. In particular, in accord with its experience, Verizon accrues as uncollectible a percentage of its current billings, and additional percentages are accrued as the receivables age beyond 30, 60 and 90 days. The uncollectible reserve is "trued-up" as customers pay less or more than the amount accrued as uncollectible.

Q. Does this accounting method differ from what you described in your September 2002 declaration?

A. Yes, the difference is one of "timing" and involves "when" Verizon actually classifies a receivable as an "uncollectible." As 1described in my earlier declaration, Verizon previously classified an amount as uncollectible after a specific event (such as a CLEC bankruptcy) made it unlikely that Verizon would collect an outstanding receivable. (Minion Decl. ¶ 6.) For example, if a CLEC filed for bankruptcy, Verizon would estimate the amount of outstanding revenue it no longer expected to collect from that carrier and accrue that amount as uncollectible. Once the bankruptcy proceeding was complete, Verizon would then accrue the appropriate amount to "true up" the uncollectibles. This is the process Verizon followed to calculate uncollectibles in 2001. In 2002, however, Verizon began calculating its uncollectibles using the up-front accrual

process noted above, which focuses on the age of receivables. Under this process, Verizon accrues reserve amounts for uncollectibles based on the age of outstanding receivables (rather than based on a specific event such as a bankruptcy). As noted above, these reserves are trued up based on customer payments. Both processes are consistent with GAAP accounting practices. However, given the sharp increase in CLEC bankruptcies and the resulting rise in uncollectibles over the past couple of years, the current method is more appropriate because it allows Verizon to more closely match the uncollectible risk to the financial period in which the receivables were recorded.

Q. How did Verizon determine the actual uncollectibles from its accounting records?

A. As I explained in my earlier declaration, Verizon tracks uncollectibles in its accounting system at two levels: the line of business level as well as the corporate finance level. Because the corporate finance uncollectibles figure for 2001 combined uncollectibles attributable to both access charges and the provision of UNEs and resale, Verizon developed a proxy to calculate the percentage of total wholesale uncollectibles figure at the corporate level attributable to UNE and resale uncollectibles. (Minion Decl. ¶ 11.)

In 2002, Verizon's accounting records at the corporate level began recording not only "total" wholesale uncollectibles but also the wholesale uncollectibles attributable to the provision of access separately from those attributable to the provision of UNEs and resale. Consequently, for 2002, Verizon did not have to use a proxy to determine the uncollectible amounts attributable to the provision of UNEs and resale (as it did for 2001). The breakdown between the line of business and corporate finance uncollectible figures for 2001 and 2002 for Verizon-East and for Verizon Virginia, as well as the amount of the adjustment for WorldCom and September 11, are provided in the chart

contained in Attachment 1. In addition to showing the calculations that produced the uncollectible rates for 2001 and 2002 separately, the chart also shows the calculation that produced the 24-month average uncollectible rates I referenced at the beginning of this testimony.

Q. Are the uncollectible rates you report here reasonable forward-looking estimates?

A. Yes. The telecommunications industry continues to experience a great amount of volatility and chum, with the result that Verizon continues to be unable to collect a substantial portion of its UNE and resale receivables. In fact, the uncollectible rate remained high throughout 2001 and 2002. Thus, based on currently available information, the uncollectibles rates I report here are reasonable estimates of what Verizon will experience in the reasonably foreseeable future. Conversely, it is absolutely clear that the *0.56%* proxy included in Verizon VA's studies is far too low and basing rates on that proxy would dramatically understate costs.

Q. How would Verizon VA's proposed loop costs change using the new uncollectible rates identified here?

A. Applying the 0.56% proxy uncollectible rate Verizon originally proposed resulted in a two wire loop cost of $17*.86* in Virginia's Density Cell 1. However, the 11.8% Venzon-East uncollectible rate would result in a total loop cost of $20.14 in Density Cell 1. Using the 25.82% Virginia-specific uncollectible rate results in a total two wire loop cost of $23.95 in Density Cell 1.

Declaration of Louis Minion

I declare under penalty of perjury that I have reviewed the foregoing testimony and that those sections as to which I testified are true and correct.

Executed on April 14,2003

Louis Minion

VERIZON VIRGINIA INC.

SUPPLEMENTAL TESTIMONY OF HAROLD E. WEST, III

DOCKET NOS. 00-218, 00-249, 00-251

APRIL 15,2003

SUPPLEMENTAL TESTIMONY OF HOWARD E. WEST, III

Q. Please State Your Name, Position And Business Address?

A. My name is Harold E. West, III. I am Director – Regulatory Support for Verizon Communications, Inc. My office is located at 540 Broad Street, Newark, New Jersey. I am the same Harold E. West, III that testified in the original proceedings in this case.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to supplement the record on the state of competition in Virginia by referencing the attached report entitled "Local Competition in Virginia: 2003 Update." This report contains information collected from publicly available sources as well as information collected from internal Verizon databases. The report accurately reflects the data contained in those internal databases.

Declaration of Harold West III

I declare under penalty **of** perjury that I have reviewed the foregoing testimony and that those sections as to which I testified are true and correct.

Executed on April 14th, 2003

Harold West III

	May 2001*			January 2003		
	Residential	Business	Total	Residential	Business	Total
Facilities-Based Lines*	121.000	319,000	440,000	222,000	538,000	760,000
UNE Platform Lines	6,100	1,500	7,600	48,000	29,000	77,000
Resale Lines	36,000	70,000	107,000	25,000	38,000	63,000
Total	**164,000**	**391,000**	**555,000**	**295,000**	**605,000**	**900,000**

***E911 listings are as of the end of June 2001.**
****The total for facilities-based lines in 2001 is based on E911 listings and includes unbundled loops. Residentid and business volumes are based on facilities-based residential directory listings data as E911 data were not available. January 2003 data are based on E911 listings and include unbundled loops.**

3. *Competition for Business Customers.* The number *of business* lines served by competing carriers in Virginia has grown by *55 percent* since the last report; competitors now

[1] Both Bell Atlantic and GTE provided service in Virginia prior to the merger of the two companies. References to "Virginia" in this Report mean "Verizon's territory in Virginia formerly served by Bell Atlantic." References to "Verizon" mean "the former Bell Atlantic."

[2] Unless otherwise specified, competitive "lines" refers to voice-grade lines used to provide dialtone service to a single telephone number. In the substantial majority of cases where a competitor has an E911 listing for a customer, it serves that customer entirely over its own facilities. In all cases, the competitor is using at least its own switch to serve that customer, rather than a **UNE** platform or resale. Each E911 subscriber listing represents at least one customer access line, hut may represent more than a single line. In the case of business customers, for example, a single E911 listing may represent many individual lines. In addition, there are no E911 listings for competitors' DSL lines that are used exclusively to provide data services. Verizon's estimates of facilities-based lines in Virginia based on January 2003 E911 listings also exclude all NXX codes that serve both the former GTE service area and the former Bell Atlantic service area. This is because Verizon could not easily separate out the E911 listings for the former GTE service area. The total number of E911 listings that competitors have obtained therefore understates the number of facilities-based lines that competitors serve.

serve at least **605,000** business lines in the state. Most of the growth in the last **20** months has occurred on CLECs' own facilities. ***See id.*** The number **of** business lines that competitors serve wholly or partially over their own facilities (including in all cases their own local switches) increased by nearly *70 percent* since the last report, and such lines now comprise nearly 90 ***percent*** of all competitive business lines in the state. ***See id.***

4. ***Competitionfor Residential Customers.*** The number of residential lines served by competing carriers in Virginia has grown by approximately 80 ***percent*** since the last report, and most of this growth has occurred on CLECs' own facilities. **See** Table **1.** The number **of** residential lines that competitors serve wholly or partially over their own facilities (including in all cases their own local switches) increased by approximately *83 percent* since the last report, and such lines now comprise nearly three-quarters of all competitive residential lines in the state. ***See id.***

5. ***Competitionfrom Cable Telephony.*** The provision of cable telephony in Virginia has continued to expand since the last report. Cox announced in December **2001** that "[w]e are spending **$1** million every day on what we call the Cox Digital Revolution upgrade to provide customers with better service and system reliability, and new products such as Cox digital cable, high-speed cable modem Internet service and competitive local telephone service with Cox digital telephone. Without question, Northern Virginians will experience the benefits of the most advanced fiber-optic communications system in the country.'" Comcast completed its acquisition of AT&T Broadband in November **2002,** which more than doubled its overall customer base of cable and telephony customers,[4] and made Comcast the largest cable operator in the U.S.[5] **As** a result of the merger, Comcast provides service to more than **28,000** telephony customers in the Richmond area.[6] Of course, both Comcast and Cox *offer* telephony service to a far greater number of homes than they are currently serving. Cox currently offers service in Hampton Roads and parts of Newport News, Williamsburg, and Virginia Beach, and has announced plans to provide service in Fairfax by the end of **2003.**[7] Comcast provides cable telephony service throughout most of its Richmond franchise area.[8]

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[3] *G.* **McCollum,** ***Short-Term Outages, Long-Term Benefits,*** **Wash. Post (Dec. 13,2001). As of January 2003, the residential upgrade was approximately** *70* **percent complete.** ***See Cox Improving Customer Service, Closer to Completing Cable TV Upgrade,*** **Wash. Post at C4 (Jan 19, 2003). Although Fairfax County officials voted to tine Cox for failing to complete these upgrades according to schedule, Cox has reiterated its commitment to the upgrade:** "Our **deep commitment** to **provide county residents with the premier communications network in the country has never wavered." L. Rein,** ***Fairfax To Fine Cable Firmfor Upgrade Failure,*** **Wash. Post at** B01 **(July 23,2002) (quoting Gary McCollum, vice president and general manager for Cox's northern Virginia operation).**

[4] **Comcast Press Release,** ***Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Goals*** **(Feb. 27,2003).**

[5] **NCTA,** ***Top*** **25** ***MSOs,*** http://www.ncta.com/industry_overview/top50mso.cfm **(as of Sept. 2002).**

[6] ***Joint Petition of AT&T Corp. and AT&T Comcast Corporation for Approval to Change Control of AT&T Broadband Phone of Virginia, Inc., to AT&T Comcast Corporation,*** **Order Granting Approval, Case No. PUA-2002-00012 (VA SCC filed July 17,2002).**

[7] L. **Rein,** ***Cable Firm Plans Phone Service,*** **Wash.** Post **at C9 (June 23,2002) (quoting Alex Horwitz)**

[8] *G.* **Edwards,** ***Phone Companies in Dispute on Rates,*** **Richmond Times-Dispatch at B-10 (Oct. 13, 2000).**

6. Cable operators also are continuing their push to provide telephony services using packet-switched IP technology. Cox has recently stated that it is "actively evaluating and pursuing the technology," even while it aggressively competes using its circuit switched digital telephony service.' Other cable operators are already introducing IP-based services in states served by Verizon, bypassing circuit switched services entirely. For example, "[i]n the last few weeks, Cablevision Systems Corp. has started to offer [IP telephony] to select customers in the New York suburbs,"[10] and announced plans to roll out service in New Jersey in the second half of this year." Time Warner Cable has recently introduced new "digital phone" service throughout its Maine service area, where until recently it had only been testing the service."

7. ***Competitive Switching.*** According to Telcordia's ***Local Exchange Routing Guide,*** since the time of the last report competitors have deployed approximately 10 new switches that they are using to serve customers in Virginia." For example, in July 2002, Cavalier announced that, in order "to accommodate widespread requests by current and new customers," "it has doubled its switching and network capacity throughout its footprint."" Based on where they have obtained ported numbers, competitors in the state are now using their switches to serve customers in wire centers that contain at least 85 percent of Verizon's access lines in Virginia – approximately 90 percent of its business lines, and more than 80 percent of its residential lines. Competitors are serving a total of at least 760,000 lines in Virginia over their own switches, including at least 538,000 lines provided to business customers, and 222,000 lines provided to residential customers. Approximately 146,000 of the lines that competitors are serving with their own switches are being provided together with unbundled loops leased from Verizon. The rest are being served over CLECs' own last-mile facilities, or over alternative facilities.

8. ***Other Indicia of Facilities-Based Competition.*** As competitors have increased the numbers of lines and customers they serve, they have also increased the facilities they use to

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[9] Cox Communications, ***White Paper: Preparing for the Promise*** of ***Voice-over Internet Protocol (VoIP)*** (Feh 2003).

[10] S. Rosenbush, ***Broadband Telephony,*** The Business Week 50 at 168 (Spring 2003).

[11] ***Cable Calling; Providers Planning Telephone Service To Rival Baby Bells,*** Record (Bergen County, NJ) at B01 (Apr. 6,2003).

[12] **E.** Murphy, ***Cable Company Expands Phone Service,*** Portland Press Herald (Apr. 8,2003) http://business.mainetoday.com/pulse/030408cablefone.shtml ("The new service replaces Line Runner, which was Time Warner's test phone service and was intended as a second phone line, said Melinda Poore, the company's director of government and public affairs. Some initial bugs were worked out, and Digital Phone is intended to be used as a primary phone service.").

[13] While some of the CLECs operating in Virginia may have gone bankrupt since the last report, it is clear that other CLECs are putting the facilities of those bankrupt CLECs to use. For example, in January 2002, Allegiance announced the acquisition of the CLEC assets of Intermedia Communications, which includes a local voice switch in Fairfax. **See** Allegiance Telecom Press Release, ***Allegiance Telecom Acquires Intermedia Business Internet Assets*** *from WorldCom* (Jan. 3,2002); Telcordia, ***Local Exchange Routing Guide (LERG)*** (Jan. 2002) ***("January 2002 LERG").*** In January 2002, Cavalier acquired substantially all of the assets, including the customer base, **of** Net2000. Net2000's assets in Virginia included both a local voice and a data switch in Richmond, **as** well as data switches in Norfolk and Williamshurg. ***See*** Cavalier Telephone Press Release, ***Cavalier Telephone Completes Purchase of Net2000 Communications*** (Jan. 21,2002); New Paradigm Resources Group, ***CLEC Report 2002,*** Ch. 6 – Net 2000 Communications at 8 (15th ed. 2002); ***January 2002 LERG.***

[14] Cavalier Telephone Press Release, ***Cavalier Telephone Expands Capacity*** (July 9,2002) (quoting Larry Sims, Cavalier vice president of operations).

interconnect with Verizon's network. The number of interconnection trunks that competitors use to exchange traffic with Verizon's network has increased by nearly 62 percent since the last report. As of February 2003, Verizon was providing more than 273,000 interconnection trunks to approximately 30 competitors in Virginia. As of that same date, Verizon was exchanging an average of approximately 1.4 billion minutes per month with competitors – an increase of more than 30 percent over the average number of minutes exchanged each month at the time of the last report.

9. Competitors also have increased the extent to which they are porting numbers from Verizon for the customers that they have won. Through January 2003, Verizon has ported approximately 608,000 numbers to approximately 25 CLECs through long-term (permanent) number portability ("LNF"). By contrast, at the time of the prior report, Verizon had ported approximately 301,000 numbers to approximately 20 CLECs through LNP.

10. As demonstrated above, most of the lines that competitors have been adding in Virginia appear to be provided entirely over competitors' own facilities. But competitors also have continued to add lines by combining their own facilities with unbundled network elements. Since the last report, the number of stand-alone unbundled loops provided to competitors grew from 116,000 to 170,000, an increase of more than 45 percent.

11. Other Forms of Intermodal Competition. Finally, Verizon also has continued to lose a large and growing number of lines to wireless networks, as well as other alternative sources such as IP telephony, e-mail, and instant messaging.

12. One new source of intermodal competition since the last report is IP telephony service provided by Vonage – "the broadband phone company." In November 2002, Vonage launched its DigitalVoice service using VoIP technology in northern Virginia. According to Vonage chairman and CEO Jeffrey Citron, "[Vonage is] offering Beltway residents and small businesses a real alternative to Verizon by giving them free unlimited local and long distance phone service they install themselves, including all of the features, for an attractive price."[15] In one year, Vonage has gained nearly 20,000 subscribers nationwide, and transmits one million calls each week over its VoIP network.[16] The company recently announced a partnership with Intrado to provide 911 emergency calling services to Vonage customers.= According to director of channel sales Michael Centrella, Vonage is also looking to partner with cable MSOs and large ISPs to "quickly sell [Vonage's] voice services to these businesses without subjecting them to major expenditures or operational impacts."""

13. Since the last report, mobile wireless has continued to grow as a competitive substitute for wireline services. A January 2002 USA *Today*/CNN/Gallup poll found that 18

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[15] **Vonage Press Release,** ***Vonage DigitalVoice Launches Service in the Washington, DC Metro Area*** **(Nov. 12, 2002).**

[16] **Vonage Press Release,** ***Vonage Complefes15 Million Calls over SIP Network*** (Mar. **31,2003).**

[17] **Vonage Press Release,** ***Intrado and Vonage Digital Voice Partner To Provide Emergency Calling Solution*** (Mar. **25,2003).**

[18] **Vonage Press Release,** ***Vonage Shifts Its Channel*** **Sales** ***Toward Retail, E-Tail, ISPs and MSOs*** (Mar. **21,2003).**

percent of cell phone users "use cell phones as their primary phones."[19] A September 2002 Yankee Group study found that, "although only 3 percent of U.S. consumers use their mobiles as their only phone . . . 26 percent of the mobile users' minutes are already being displaced from wireline to wireless and 45 percent of mobile users indicated at least some substitution."[20] A wireless industry association has estimated that the number of consumers using wireless phones exclusively as of that date "could be as high as 5 percent."[21] The number of wireless subscribers in Virginia grew by nearly 15 percent from June 2001 to June 2002 – from fewer than 2.8 million to nearly 3.2 million.[22]

14. ***Effect of Competition on Verizon's Lines and Minutes.*** As a result of this growing competition, the number of lines served by Verizon in Virginia has declined in each of the last two years – by 4 percent in 2001 and by an additional 7 percent in 2002 – reversing a century-old trend of year-over-year growth (an average of 5 percent in Virginia) that Verizon has historically experienced.[23] Moreover, an even greater number of switched access minutes is migrating from Verizon's networks to competitive networks. The number of switched access minutes of use in Virginia declined by 5 percent in 2001 and by an additional 11 percent in 2002.[24]

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[19] M. Kessler, *18% See Cell Phones as Their Main Phones,* USA Today (Jan. 31,2002).

[20] *U.S. Wireless Use to Nearly Double by* 2006 – *Study,* Reuters (Sept. 16,2002) (quoting Yankee Group study).

[21] *Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993 and Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services,* Sixth Report at 32, n.207, FCC 01-192 (rel. July 17,2001) (citing *Consumers Replacing Landline Phones with Wireless,* Knight Ridder/Trib. Bus. News (Jan. 10,2001)).

[22] Ind. Anal. & Tech. Div., FCC, *Local Telephone Competition; Status as of June 30, 2002* at Table 11 (Dec. 2002).

[23] FCC, ARMIS Report 43-01, Table II (Annual Summary Report: Demand Analysis), http://www.fcc.gov/wcb/armis (does not include former GTE territory) (average annual growth rate for 1997-1999).

[24] *Id.*

VERIZON VIRGINIA INC.

SUPPLEMENTAL TESTIMONY OF DR. JAMES H. VANDER WEIDE

DOCKET NOS. 00-218, 00-249, 00-251

APRIL 15,2003

SUPPLEMENTAL TESTIMONY OF JAMES H. VANDER WEIDE

Q. Please state your name and business address?

A. My name is James H. Vander Weide. I am Research Professor of Finance and Economics at the Fuqua School of Business of Duke University. I am also President of Financial Strategy Associates, a firm that provides strategic and financial consulting services to clients in the electric, gas, insurance, telecommunications, and water industries. I previously presented testimony in this proceeding.

Q. What is the purpose of your supplemental testimony?

A. In my previous testimony, I estimated a cost of capital that reflected the risks associated with a competitive market using as a proxy a group of companies of less than average risk drawn from the S&P Industrials. I estimated the cost of capital for competitive companies because the Commission's rules are clear: to be consistent with the other competitive market assumptions in TELRIC studies, the cost of capital must also reflect the risks of a competitive market." The Commission recently affirmed this requirement, stating that "the risk-adjusted cost of capital used in calculating UNE prices should reflect the risks associated with a competitive market."[2/]

However, I also noted previously that my cost of capital estimate was conservative because it did not take into account the additional regulatory risks Verizon VA faces in providing UNEs to CLECs under the UNE regime and the TELRIC standard. For example, the UNE regime permits CLECs to cancel their UNE leases at any time

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1/ *Local* ***Competition*** *Order* **¶¶ 679,738.**

2/ Attachment to FCC Triennial Review Press Release at 4

with no notice and no penalty; the TELRIC standard generally sets rates on overly optimistic demand, expense, and investment assumptions that will result in Verizon VA's inability to recover the actual costs of building and operating its network. If these regulatory risks are not quantified and included in the cost of capital input in TELRIC cost studies, Verizon VA will be unable to earn its competitive market cost of capital. In my supplemental testimony, I therefore quantify a regulatory risk premium designed to account for some of these risks. My regulatory risk premium is still conservative in that it does not reflect all the regulatory risks associated with the UNE regime and the TELRIC pricing standard.

Q. Please summarize your supplemental testimony.

A. Using well established financial models, I have calculated a regulatory risk premium of 5.41% to quantify some of the risks of providing UNEs to CLECs under the TELRIC standard. This risk premium should be added to the cost of capital estimate presented in my initial testimony.

Q. Please explain why the regulatory risks of the TELRIC standard and UNE regime are not included in the cost of capital you presented in your previous testimony.

A. The cost of capital I presented in my previous testimony was based on my application of the discounted cash flow ("DCF") model to a group of competitive companies of less than average risk. The fundamental assumption of the DCF model is that decision-makers are passive: once they buy a stock, they have no option to make further decisions based on updated information. Thus, the DCF model simply does not allow for the analysis of option-like investments. Yet the right to exercise options is fundamental to the UNE and TELRIC regimes: under this regulatory framework, CLECs have the ability

to reduce their costs by exercising their option to cancel their existing UNE leases and (1) renew at the new, lower rates after every new rate case; or (2) build their own facilities or move to alternative facilities or technologies and bypass the ILEC's network altogether. The ability to "renew" the UNE contract at lower UNE rates and the ability to cancel UNEs altogether and serve the customer through alternative facilities is analogous to the ability to exercise "options" in the financial world.

The value of these CLEC options is not included in the DCF or other cost of capital models, and thus is not captured in the cost of capital I presented in my initial testimony. Indeed, Professors Black and Scholes developed their world-famous Black-Scholes option pricing model (a predecessor to the model I use in my analysis) specifically because traditional valuation models such as the DCF fail to reflect the economics of investments that involve real options. **As** Brealey and Myers explain in their popular text:

> Discounted cash flow (DCF) implicitly assumes that firms hold real assets passively. It ignores the options found in real assets—options that sophisticated management can act to take advantage of. You could say that DCF does not reflect the value of management.
>
> Remember that the DCF valuation method was first developed for bonds and stocks. Investors in these securities are necessarily passive: with rare exceptions, there is nothing investors can do to improve the interest rate they are paid or the dividends they receive. **A** bond or common stock can be sold, of course, but that merely substitutes one passive investor for another.
>
> Options and securities which contain options, such as convertible bonds, are fundamentally different. Investors who hold options do not have to be passive. They are given a right to make a decision, which they can exercise to capitalize on good fortune or to mitigate loss. This right clearly has value whenever there is uncertainty. However, calculating that value is not a simple matter of discounting. Option pricing theory tells us

what the value is, but the necessary formulas do not look like DCF.[3/]

The fact that purchasers have similar options and that those options have value is recognized in numerous other contexts. For example, a car lessor will require higher monthly payments on a short-term lease than a long-term one because of the risk that the lessee might cancel or renew at lower rates.

Q. Are there other reasons why the regulatory risks of TELRIC and the UNE regime are not included in the cost of capital you presented in your previous testimony?

A. Yes. Another reason my cost of capital estimate did not account for these regulatory risks is that many of the companies in my competitive market analysis are not required to invest in large, long-lived sunk investments that are recovered over a long period of time. For example, retailers such as Albertson's or Avon Products invest primarily in inventories and recover their investment over a very short time. Furthermore, these companies sell their products rather than lease them, and hence customers do not have the "option" to renew a lease at lower rates or cancel a lease altogether.

Finally, the risks faced by UNE providers as a result of CLEC options are compounded by the TELRIC standard. TELRIC rates are set at cost on the assumption that the ILEC has 100% of the wholesale market and that the fixed costs of the network can be spread across this demand. As a result, if CLECs cancel their UNE leases and either renew at lower rates or capture the customer by bypassing the ILEC's facilities altogether, the ILEC will necessarily recover less than its costs. Unlike a real world competitor (even one that otherwise faces options risk), the ILEC has no way to balance

[3/] BREALEY, RICHARD A. & STEWART C. MYERS, PRINCIPLES OF CORPORATE FINANCE, 622 (6th Ed. 2001)

out that risk by charging rates above cost or exceeding demand forecasts. As a result, absent adjustment for these additional risks, the "expected value" of a UNE provider's return will always be lower than its cost of capital.

I. THE UNE COST OF CAPITAL MUST CAPTURE THE REGULATORY RISK THAT UNE RATES WILL BE RESET.

A. Risks Associated with Providing UNEs at TELRIC Rates

Q. Does **the required rate of return on an investment vary with the regulatory risk to which that investment is subject?**

A. Yes. **As** I explained in my testimony previously submitted in this proceeding, investors require a higher rate of return on investments with greater risk, and that is equally true of risk that results from the applicable regulatory regime. The Commission has made this very point to the Supreme Court, noting that "an appropriate cost of capital determination takes into account not only existing competitive risks.. .but also *risks associated with the* ***regulatory*** *regime* ***to*** *which a firm is subject.*"[4/]

Q. How does regulatory risk arise under the UNE regime and the TELRIC standard?

A. Regulatory risk arises under the UNE regime and the TELRIC standard because rates are set to reflect the forward-looking investment and operating costs of reconstructing the incumbent LEC's telecommunications network using the most efficient available technology each time rates are set. If UNE rates are reset every few years to reflect the cost of reconstructing and operating yet another new, supposedly more efficient, network and CLECs can immediately benefit from these lower rates, Verizon VA will earn a

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4/ **Reply Brief** in *Verizon* **at** 12 n. **8. (emphasis** added.)

return on its investment that is significantly less than its market cost of capital absent some adjustment for this risk.

Verizon VA also faces regulatory risk as a result of the fact that the UNE regime allows CLECs the option to cancel their leases. This creates additional risk that CLECs will purchase UNEs, but then leave Verizon VA's network to build their own facilities to capture the same customers, thus leaving the UNE facilities stranded and reducing the ILEC's opportunity to earn the necessary return. Indeed, as Verizon VA has demonstrated in this proceeding, numerous companies in Virginia provide local service using their own facilities." This risk is compounded by the fact that TELRIC requires that rates be set based on the assumption of 100% demand.

The regulatory risk that Verizon VA will be unable to earn a fair rate of return on its investment capital under the TELRIC standard is also magnified by regulators' practice of basing UNE rates on unrealistic expense and investment forecasts.

Q. Have you been able to quantify the impact of regulatory risk on the appropriate cost of capital for use in UNE cost studies?

A. I have been able to quantify some of the regulatory risk. As I explained at the beginning, my quantification is conservative because some risks are still not captured by this risk premium. I estimated the impact of regulatory risk under the UNE and TELRIC regime by looking at the comparable risk associated with the ability to exercise "options" in the financial world. I did this by: (1) recognizing the difference between a fixed-rate, non-cancelable financial lease and a cancelable operating lease; (2) using the data on the

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5/ VZ-VA Ex. 103 at Attachment A; West Supp. at Attachment A

forward-looking investment, operating expenses, and depreciation for the network that Verizon VA provided in this proceeding to reflect the TELRIC costs of providing UNEs in Virginia; (3) using a standard methodology for valuing the CLECs' option to renew their UNE lease at lower rates when rates are reset to reflect the supposedly lower cost of new technology or to cancel their leases altogether; and (4) comparing the required rate of return on a fixed-rate, non-cancelable financial lease for Verizon VA's network to the required rate of return on a cancelable operating lease for this network.

Q. What is the difference between a fixed-rate, non-cancelable financial lease and a cancelable operating lease?

A. The financial literature distinguishes between two types of leases. The financial lease is a long-term, non-cancelable lease, whose term is approximately equal to the expected economic life of the leased property. The lease payments in a financial lease are fixed for the life of the contract and must be sufficient to cover the original cost of the property, the operating expenses, and the cost of capital.

The operating lease, on the other hand, is a cancelable lease that has an expected term much **less** than the expected economic life of the leased property. Under the operating lease, the **lessee** has the option to cancel the lease on short notice. The cancellation feature of the operating lease increases the risk that the lessor will be unable to recover its investment and earn a fair return on that investment. Thus, the lease payments on an operating lease must be larger than the lease payments on a financial lease. Indeed, they must be sufficient to compensate the lessor for the risk of economic loss if the lease cannot be renewed at rates that allow the lessor to earn its market cost of capital on the original investment.

Q. Why is the distinction between a fixed-rate, non-cancelable financial lease and a cancelable operating lease important for the purpose of estimating the appropriate cost of capital for use in UNE cost studies?

A. The distinction is important because the initial cost of capital proposals in this proceeding were based on the DCF model (and, in the case of AT&T/WorldCom, the CAPM as well) and accordingly inherently make the assumption that the lease contract with the CLECs is a fixed-rate, non-cancelable financial lease, when, in fact, purchasing UNEs is like a cancelable operating lease that gives the CLECs the ability to renew their lease when a regulatory body lowers UNE rates or to cancel altogether. Since cancelable operating leases involve higher risk to the lessor, these proposals do not fully account for the relevant risks and significantly underestimate the appropriate cost of capital for use in UNE cost studies

Q. Do financial market participants recognize that cancelable operating leases involve significantly higher risk than non-cancelable financial leases?

A. Yes. The higher risk of cancelable operating leases is widely recognized in the financial community. Examples of such recognition include:

- Car lessors require significantly higher monthly lease payments on short-term operating leases than on longer-term financial leases.
- Wireless service providers offer lower rates for customers who are willing to sign longer-term, fixed-rate contracts.
- Independent power producers can only obtain financing to build new electric generation facilities if they can prove they have long-term purchase power agreements with utilities that commit utilities to purchasing power from the independent power producer over the life of the generating facilities. Without such agreements, the risks of building new generation facilities are simply too high to justify investment.
- Bond rating agencies consider interstate pipeline companies to have lower business risk if they have long-term, fixed-rate contracts for pipeline capacity.

Q. Why do cancelable operating leases involve significantly higher risk for Verizon VA?

A. Verizon VA's network investment is large, long-lived, and largely fixed once the investment is made. If the CLECs build their own facilities, use alternative facilities or technologies, or periodically obtain UNEs at lower rates, Verizon VA's revenues will decline, while its investment and operating expenses remain the same. Thus, under the UNE regime, the risk that Verizon VA will not be able to earn a fair rate of return on its investment is very high. Indeed, it is fair to say that under the UNE regime and TELRIC standard, Verizon VA is virtually certain to earn a rate of return on investment that is significantly less than its market cost of capital.

Q. Does Verizon VA face regulatory risk even if CLECs don't leave Verizon VA's network to build their own facilities?

A. Yes. Verizon VA faces considerable risk whether or not CLEC customers continue to lease Verizon VA's facilities. In practice, the TELRIC standard has been applied to periodically reset rates at successively lower prices based on state commissions' views of the costs of a hypothetical network using the most efficient technology currently available. Under this approach, Verizon VA suffers an economic loss every time rates are lowered to reflect yet another new, more efficient network, even if all CLEC customers continue to be served from Verizon VA's facilities. In other words, if UNE rates are set today by assuming a hypothetical optimally efficient reconstructed network, but reset in three years assuming a new, even lower cost hypothetical network, then Verizon VA will have no opportunity to earn its cost of capital.

Q. Can **you** illustrate how the **TELRIC** standard denies Verizon **VA** an opportunity to earn a rate **of** return on investment that is at least equal to its cost **of** capital?

A. *Yes*. Suppose that Verizon VA's initial UNE rates are based on the assumption that Verizon VA could reconstruct its network by committing to a stream of TELRIC costs, including operating expenses and investment, which have a discounted present value of $15 billion. Clearly, for Verizon VA to earn a fair rate of return on its investment, UNE rates must **be** set so that the present value of Verizon VA's expected lease revenues will also be $15 billion.

Now suppose that in a new pricing proceeding, rates are reset based on the assumption that a hypothetical network using the then-latest telecommunications technology could be reconstructed once again, at a lower discounted present value of **$12** billion. Of course, Verizon VA would not find this second reconstruction of its network to be economically attractive because it would incur a large investment just to achieve a small savings in operating expenses. However, since TELRIC rates are based on the forward-looking economic cost of the most efficient current technology, Verizon **VA's** UNE rates will be reduced to a level where the present value of future lease revenues is $12 billion. Since the present value of Verizon VA's expense and investment is fixed at $15 billion, Verizon VA will not be able to recover the forward-looking economic cost of the network it was presumed to have constructed when UNE rates were initially set.

Importantly, this analysis uses TELRIC costs, not actual costs, as a starting point. Therefore, it ***does not capture*** the additional risk associated with the fact that the TELRIC standard denies recovery of actual forward-looking or historical costs.

Q. What are the economic implications **of** the Commission's **TELRIC** standard?

A. Under the TELRIC standard, the expected present value of Verizon VA's lease revenues will almost certainly be less than the expected present value of Verizon VA's TELRIC network expenses and investment. In terms of the previous example, the present value of Verizon VA's revenues will equal only $12 billion once rates are reset. Yet, once Verizon VA reconstructs its network the first time, the present value of Verizon VA's network expenses plus investment are fixed at $15 billion. **As** shown in Table 1 below, assuming a 50/50 probability that rates are reduced when they are reset (which is extremely conservative, given the experience since passage of the Act), the expected value of Verizon VA's stream of lease payments will equal $13.5 billion, but its TELRIC expenses will still be $15 billion. Thus, the expected (i.e., probability-weighted) present value of Verizon VA's revenues will be *less* than the present value of its TELRIC expenses.

Table 1

Present Value of Lease Revenues and TELRIC Costs With and Without Arrival of New Lower-Cost Technology

Outcome	Probability	PV Revenues	PV Exuenses Plus Investment
No new technology	0.5	$158	$158
New technology	0.5	$128	$158
Expected value"		$13.58	$158

Q. What does your illustration say about Verizon VA's investment risk under the UNE and TELRIC regime?

6/ The expected value is the probability weighted average of the two outcomes. Thus, the expected PV revenues equals .5(15) + .5(12) = **$13.58.**